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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,673	04/28/2006	Bruce Halcro Candy	04465/022001	8479
58766	7590	06/02/2009		
Beyer Law Group LLP P.O. BOX 1687 Cupertino, CA 95015-1687			EXAMINER WHITTINGTON, KENNETH	
			ART UNIT 2858	PAPER NUMBER
			MAIL DATE 06/02/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,673	Applicant(s) CANDY, BRUCE HALCRO	
	Examiner Kenneth J. Whittington	Art Unit 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-10 is/are allowed.
- 6) ☒ Claim(s) 1 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Amendment and Declaration filed April 20, 2009 have been entered and considered. In view thereof, the rejections of claims 9 and 10 are withdrawn.

Allowable Subject Matter

Claims 2-10 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 2-8, these claims are allowed for those reasons outlined in the Office Action mailed May 15, 2008.

Regarding claims 9-10, they are allowed in view of the amendments thereto and because the prior art does not show or teach a linear amplifier and the transmit voltage changing linearly during the third time period as recited in the claims and in combination with the other features of the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct

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from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 11 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 9 of U.S. Patent No. 7474102.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 9 of the '102 patent reads on claims 1 and 11 of the present application.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Candy (US4942360), hereinafter '360 Candy, in view of Candy (US5576624), hereinafter Candy II.

Regarding claim 1, '360 Candy teaches a transmit coil adapted to transmit an alternating magnetic field associated with a reactive transmit voltage (See '360 Candy FIG. V, item 66);

transmit electronics adapted to generate a transmit voltage signal which is applied to the transmit coil (See circuitry shown in lower portion of FIG. V); and

receive electronics adapted to receive a magnetic field signal and process received signals to produce an indicator output (See FIG. V, receive coil 120 and receive electronics associated therewith),

wherein the transmit voltage signal is selected such that the reactive transmit voltage is approximately constant for at least a time period during which a magnetic field signal to be processed is received by the receive electronics (See col. 9, line 11 to col. 10, line 53, particularly col. 9, lines 28-35).

However, '360 Candy does not explicitly teach a timing control circuit. Candy II teaches a metal detection apparatus comprising transmit electronics and receive electronics wherein a timing of both the transmit and the receive electronics are controlled by a timing control circuit (See Candy II, note transmit electronics 2 and 3 and receive electronics 1 and 4-11 and timing control circuit 32). It would have been obvious at the time the invention was made to incorporate the timing control circuit of Candy II into the apparatus of '360 Candy. One having ordinary skill in the art would do

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so to control the operation of the transmit and receive electronics (See Candy II col. 17, lines 1-22).

Regarding claim 11, this combination teaches a method of detection of metal for use in environments of varying magnetic permeability, including the use of an electronic metal detector as claimed in claim 1 (See discussion of claim 1 above and rest of disclosure of '360 Candy).

Response to Arguments

Applicant's arguments filed April 20, 2009 and the Declaration of Mr. Candy filed the same day to address the obvious rejections have been fully considered but they are not persuasive.

The primary subject matter of the Declaration is concerned with comparing the invention outlined in the present application which operates in a time domain with the invention outlined in '360 Candy which operates in the frequency or phase domain. The nature of these arguments and comparisons are not disputed and are understood.

However, it is the claims that are being rejected, not the invention as a whole. As best understood, claims 1 and 11 as written can be interpreted to encompass both a time domain and a frequency domain metal detection apparatus. This is the reason for the maintenance of the rejections above. '360 Candy in view of Candy II still renders these claims obvious.

This was the reason for the Examiner suggestions in the telephone interviews with Mr. Alan Hodes on May 27 and May 28. By amending the last paragraph of claim 1

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to read "wherein a timing of both the transmit electronics and the receive electronics is controlled by a timing control circuit operating in the time domain" provides the distinction between a time domain detector and a frequency domain detector. Thus further provides the requisite distinction between '360 Candy and the present application in the manner as asserted by Mr. Candy in the Declaration.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth J. Whittington whose telephone number is (571)272-2264. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on (571) 272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth J Whittington/
Primary Examiner, Art Unit 2858

kjw